

Reply to Office Action of December 18, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 20. (Canceled).

21. (New) A washing machine, comprising:

a cabinet;

a drum rotatably installed in the cabinet;

a motor configured to rotate the drum; and

a brake resistance assembly configured to dissipate electric energy generated when the motor is turned off, the assembly comprising:

a case that defines an interior space;

first and second terminals at least partially housed within the interior space defined by the case and configured to be coupled to a motor drive circuit; and

first and second resistance coils mounted within the case and configured to convert electric energy generated when the motor is turned off into thermal energy.

22. (New) The washing machine of claim 21, wherein first ends of the first and second coils are coupled to the first and second terminals, respectively, and wherein second ends of the first and second coils are each coupled to a common terminal.

23. (New) The washing machine as claimed in claim 22, wherein the second coil is configured to receive a voltage from the second terminal based resulting from an electromotive force generated by the motor, to convert the voltage received from the second terminal into thermal energy so as to decrease the voltage, and to transfer the decreased voltage to the first coil via the common terminal.

24. (New) The washing machine as claimed in claim 23, wherein the first coil is configured to receive the decreased voltage from the second coil, and to convert the decreased voltage to thermal energy so as to substantially eliminate the voltage.

25. (New) The washing machine as claimed in claim 23, wherein the second coil is configured to become inoperative when the voltage received from the second terminal exceeds a predetermined level.

26. (New) The washing machine as claimed in claim 23, wherein the first coil is configured to become inoperative when the decreased voltage received from the second coil exceeds a predetermined level.

27. (New) The washing machine as claimed in claim 21, wherein a resistance of the first coil is different from a resistance of the second coil.

28. (New) The washing machine as claimed in claim 27, wherein the resistance of the first coil is less than the resistance of the second coil.

29. (New) The washing machine as claimed in claim 27, wherein the first coil is thinner than the second coil.

30. (New) The washing machine as claimed in claim 27, wherein the resistance of the first coil is greater than the resistance of the second coil.

31. (New) The washing machine as claimed in claim 30, wherein the first coil is made of Aluminum and the second coil is made of Copper.

32. (New) The washing machine as claimed in claim 21, wherein an exterior surface of the case is contoured so as to increase a heat-exchange area thereof.

33. (New) The washing machine as claimed in claim 21, wherein the case comprises:

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a first partition provided in the interior space and configured to receive the first and second terminals; and

a second partition provided in the interior space at a predetermined distance from the first partition.

34. (New) The washing machine as claimed in claim 33, wherein a common terminal is mounted on the second partition, wherein the first and second coils extend between the first and second partitions, wherein first ends of the first and second coils are coupled to the first and second terminals, respectively, and wherein second ends of the first and second coils are coupled to the common terminal.

35. (New) The washing machine as claimed in claim 33, wherein an insulator having good thermal conductivity is filled in a space formed between the first and second partitions.

36. (New) The washing machine as claimed in claim 35, wherein a molding material is provided at outer sides of the first and second partitions opposite the insulator.

37. (New) A brake resistance assembly for a washing machine, wherein the brake resistance assembly is configured to dissipate electric energy generated when a motor is turned off, the assembly comprising:

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a case that defines an interior space, the case comprising:

a first partition provided in the interior space; and

a second partition provided in the interior space at a predetermined distance from the first partition;

first and second terminals mounted on the first partition and at least partially housed within the interior space defined by the case, wherein the first and second terminals are configured to be coupled to a motor drive circuit; and

first and second resistance coils mounted in the interior space, wherein the first and second coils are coupled to the first and second terminals, respectively, and wherein the first and second resistance coils are configured convert electric energy generated when a motor is turned off into thermal energy.

38. (New) The brake resistance assembly as claimed in claim 37, wherein a resistance of the first coil is different than a resistance of the second coil.

39. (New) The brake resistance assembly as claimed in claim 38, wherein a resistance of the first coil is less than a resistance of the second coil.

40. (New) The brake resistance assembly as claimed in claim 38, wherein the first coil is thinner than the second coil.

41. (New) The brake resistance assembly as claimed in claim 38, wherein the resistance of the first coil is greater than the resistance of the second coil.

42. (New) The brake resistance assembly as claimed in claim 38, wherein the first coil is made of Aluminum and the second coil is made of Copper.

43. (New) The brake resistance assembly as claimed in claim 37, wherein first ends of the first and second coils are coupled to the first and second terminals, and wherein second ends of the first and second coils are coupled to a common terminal.

44. (New) The brake resistance assembly as claimed in claim 43, wherein the second coil is configured to receive a voltage from the second terminal, to convert the voltage received from the second terminal into thermal energy so as to decrease the voltage, and to transfer the decreased voltage to the first coil via the common terminal.

45. (New) The brake resistance assembly as claimed in claim 44, wherein the first coil is configured to receive the decreased voltage from the second coil, and to convert at least a portion of the decreased voltage to thermal energy.

46. (New) The brake resistance assembly as claimed in claim 45, wherein the first coil is configured to become inoperative when the voltage it receives from the second coil exceeds a predetermined level.

47. (New) The brake resistance assembly as claimed in claim 37, wherein an exterior surface of the case is contoured so as to increase a heat-exchange area thereof.

48. (New) The brake resistance assembly as claimed in claim 47, wherein the contoured portion comprises channels extending longitudinally along an exterior surface of the case.

49. (New) The brake resistance assembly as claimed in claim 37, wherein an insulator having good thermal conductivity is filled in a space formed between the first and second partitions, and wherein a molding material is provided at outer sides of the first and second partitions opposite the insulator.